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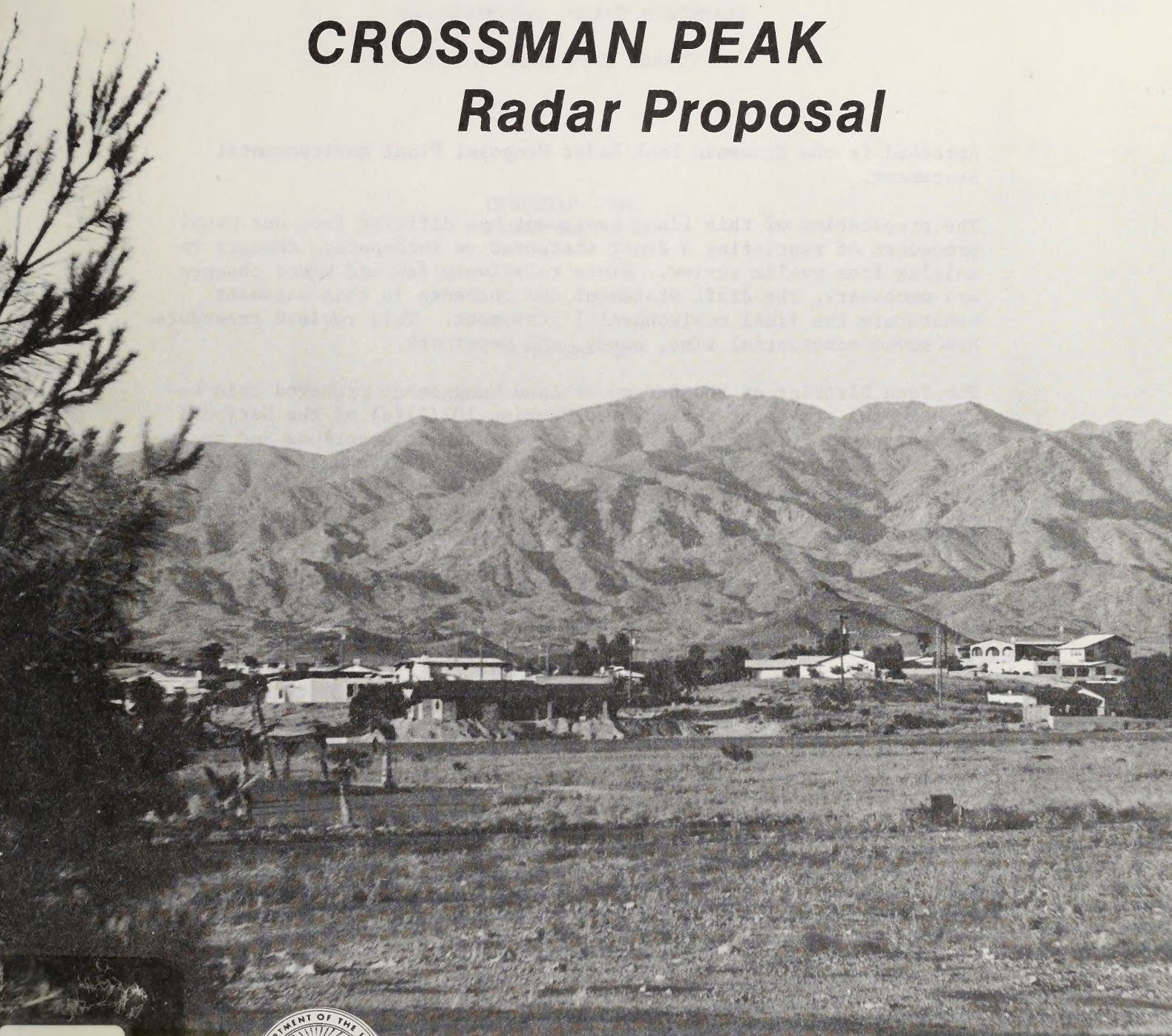
FINAL

Environmental Statement

CROSSMAN PEAK Radar Proposal



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DEPARTMENT OF THE INTERIOR -
BUREAU OF LAND MANAGEMENT

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
2400 VALLEY BANK CENTER
PHOENIX, ARIZONA 85073

1792 (920)

Attached is the Crossman Peak Radar Proposal Final Environmental Statement.

The preparation of this final statement has differed from our usual procedure of reprinting a draft statement to incorporate changes resulting from public review. Since relatively few and minor changes are necessary, the draft statement and comments in this document constitute the final environmental statement. This revised procedure has saved substantial time, money, and paperwork.

The Yuma District of the Bureau of Land Management prepared this environmental statement pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969. The statement describes and analyzes impacts that would result from constructing Air Route Surveillance Radar facilities on Crossman Peak and the impacts that would result from two alternatives: (1) constructing radar facilities on Cherum and Harquahala Peaks and (2) no action.

Thank you for your interest in this environmental statement.

Glendon E. Collins
Acting State Director

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DEPARTMENT OF THE INTERIOR

FINAL

ENVIRONMENTAL IMPACT STATEMENT

(TO BE USED WITH DRAFT)

CROSSMAN PEAK
RADAR PROPOSAL

Prepared by

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
PHOENIX, ARIZONA

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Director, Bureau of Land Management

January 1980

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SUMMARY

Draft ( ) Final (X) Environmental Statement

Department of the Interior, Bureau of Land Management

1. Type of Action: Administrative ( ) Legislative (X)

2. Abstract: The Federal Aviation Administration proposes to construct Air Route Surveillance Radar (ARSR) facilities either on Crossman Peak, near Lake Havasu City in Mohave County, Arizona or at two sites: (1) on Cherum Peak, near Chloride in Mohave County, Arizona and (2) on Harquahala Peak, near Aguila in Yuma County, Arizona. All proposed sites are on public land. Such facilities would provide low-elevation (5,000-15,000 feet) air traffic coverage in the lower Colorado River Basin, presently lacking such coverage, and high-elevation (over 15,000 feet) air traffic coverage within a 100-mile radius of Kingman, Arizona. Such facilities would benefit air safety, might benefit energy conservation, and would increase income to the local economy. The road(s) needed for access to the summit(s) would improve access for recreation and mining. Such a project, however, would conflict with land use plans, mining rights, and Native American values and would adversely affect wilderness values, visual resources, and bighorn sheep habitat. Of the two alternatives involving construction, the two-site alternative would be preferred for wildlife, cultural resources, wilderness values, Native American values, and economic benefits to local communities but would cost twice the amount of the Crossman Peak facility to build and operate, would consume twice the electrical energy of the Crossman Peak facility and increase vehicle fuel use from 250 to 1,500 gallons per month.

3. Alternatives Considered:

   a. No action
   b. Two-site alternative (Cherum and Harquahala Peaks)

4. Comments Have Been Requested from the Following:

   See attached list.

5. Date Statement Made Available to EPA and the Public:

   Draft Statement - September 1979
   Final Statement - January 1980

AGENCIES CONTACTED FOR COMMENTS

FEDERAL AGENCIES

Department of the Interior

*Bureau of Indian Affairs
Bureau of Mines
Water and Power Resources Service
*Fish and Wildlife Service
Geological Survey
Heritage Conservation and Recreation Service

Department of Transportation

Federal Aviation Administration

Environmental Protection Agency

Department of Energy

Western Area Power Administration

STATE AGENCIES

Department of Economic Planning and Development, State of Arizona (Arizona State Clearinghouse)

Office of the Governor, State of California (California State Clearinghouse)

LOCAL AGENCIES

Mohave County Board of Supervisors
Mohave County Planning and Zoning Commission
Office of Mohave County Manager
Yuma County Board of Supervisors

OTHER ORGANIZATIONS AND INDIVIDUALS

Numerous organizations and individuals expressing interest in the proposed action have been sent copies of this statement and have been invited to comment.

* Also contacted by telephone: no written response forthcoming.

INTRODUCTION

The Crossman Peak Radar Proposal Draft Environmental Statement was filed with the Environmental Protection Agency and released to the public on September 25, 1979. Notice of filing appeared in the Federal Register dated October 5, 1979. The public review period ended on November 19, 1979.

Comments received during the review period required only minor changes in the draft statement. To save time and money and reduce paperwork the draft statement is incorporated by reference into the final environmental statement.

Approximately 400 draft statements were distributed for review. From this review a total of 14 comment letters were received and are summarized on the following table. Those letters commenting on the adequacy, completeness, and accuracy of the statement are reproduced, with each substantive comment identified and numbered along with our responses.

An errata sheet identifies changes in the draft statement resulting from these comments and BLM's internal review.

SUMMARY OF LETTERS RECEIVED

The following table lists letters in the order received and indicates if a preference is expressed. Letters received after November 19 will be considered in decisionmaking even though they are not summarized or reproduced here.

Letter No.	From	Preference/Comments
1.	Mohave County Planning and Zoning Commission	Cherum and Harquahala Peaks
2.	Arizona Department of Transportation	None stated. Favors radar facility.
3.	R. S. Oram (commercial pilot)	No action. Opposes radar facility.
4.	Advisory Council on Historic Preservation	None stated. Unable to review and comment in a timely manner.
5.	Soil Conservation Service	None stated.
6.	R. W. Creason, Creason Enterprises	Crossman Peak
7.	Kenneth K. Asplund	Crossman Peak
8.	Arizona Game & Fish Department	States no preference but prefers access road on the west slope if Crossman Peak is selected.
9.	Arizona Desert Bighorn Sheep Society, Inc.	Cherum Peak only. Opposed to Crossman and Harquahala Peaks.
10.	Department of Health, Education, and Welfare, Public Health Service	None stated.
11.	National Wildlife Federation	Cherum and Harquahala Peaks
12.	Arizona State Clearinghouse	
	Comments Noted:	
	a. Arizona State University Center for Public Affairs	None stated.
	b. Department of Economic Security	Cherum and Harquahala Peaks
	c. State Land Department	None stated.
	d. Arizona Game & Fish Department	None stated.
	No Comments:	
	e. Department of Health Services	None stated.
	f. Arizona Power Authority	None stated.

SUMMARY OF LETTERS RECEIVED (CONT.)

Letter No.	From	Preference/Comments
	No Comments (Cont.)	
	g. District IV Council of Governments	None stated.
	h. Department of Transportation	None stated.
	i. Northern Arizona (Region III) Council of Governments	None stated.
	j. Agriculture and Horticulture Department	None stated.
	k. Office of Arid Lands Studies, University of Arizona	None stated.
	l. Indian Affairs Commission	None stated.
	m. State Water Commission	None stated.
13.	Federal Aviation Administration	Crossman Peak
14.	Arizona State Historic Preservation Officer	None stated.

MOHAVE COUNTY PLANNING AND ZONING COMMISSION

Mohave County Annex • 301 W. Beale Street • Kingman, Arizona 86401 • 753-9141, Ext. 284

DENIS MALM
CHAIRMAN

VERNON G. FASS
DIRECTOR

ARIZONA STATE OFFICE
BD. LAND MANAGEMENT
OCT 9 '79
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October 5, 1979

Bureau of Land Management
Arizona State Director (911)
2400 Valley Bank Center
Phoenix, Arizona 85073

Re: Draft Enviromental Statement -
Crossman Peak Radar Proposal

Dear Sirs;

The Mohave County Planning and Zoning Department has reviewed the Draft Enviromental Statement for the Crossman Peak Radar Proposal, and finds that the report is very concise and addresses all the measures of concern that this department has raised. After reviewing all the issues at hand, it would be the opinion of this department that the Cherum/Harquahala Peak alterative would be the preferred alterative. This alterative was choosen based on the following presented facts.

1) The Cherum/Harquahala Peak alterative would be more receptive to local residents.

2) While the bighorn sheep habitat would be disturbed on the Harquahala Peak, the disturbance does not appear to be as detrimental as would be experienced on Crossman Peak.

3) Cherum and Harquahala Peaks are both presently accessable by automobile.

4) The Cherum and Harquahala Peaks sites would not affect proposed wilderness areas.

5) The Crossman Peak would affect 31 State of Arizona protected plant species versed to 15 species total on the two alterative sites.

6) Native American religious conotations appear stronger for Crossman Peak.

7) The Crossman Peak site appears to be the steepest and has the least ground coverage. Therefore, any disturbance of this terrian would probably result in greater disturbances caused by errosion.

8) The presence of a manned radar station giving added protection to the preservation of Harquahala observatory lends support to the two-site alternative.

While it is evident that the installation costs and yearly operational costs for the two-site alterative these cost factors may be well off set by additional positive effects these monies will have on the local and national economy.

Sincerely,

Dennis E. Roberts
Planner II

DER/rs

RESPONSE:

Your comments are noted.

ARIZONA DEPARTMENT OF TRANSPORTATION

206 South Seventeenth Avenue Phoenix, Arizona 85007

BRUCE BABBITT
Governor

WILLIAM A. OROWAY
Director

October 3, 1979

Arizona State Director
Bureau of Land Management
2400 Valley Bank Center (911)
Phoenix, AZ 85073

RE: Comments on Proposed Expanded Radar Surveillance Coverage for Western Arizona Report No. A-5867

Dear Sir:

The Arizona Department of Transportation is in favor of the proposed addition of radar coverage for the western sections of Arizona.

A long-range radar system is necessary to increase air safety by lowering the altitude of positive radar identification. Increased radar surveillance capability can promote air safety by assisting pilots with more accurate updated weather advisories in these areas of quickly changing weather patterns. Search and rescue efforts for downed aircraft can be enhanced through the use of the new system. Lost aircraft can be located more easily and then directed to the nearest airport.

Much of the terrain within the coverage area is very rugged and rises sharply. Night navigation can be very difficult and sometimes dangerous for an unfamiliar pilot approaching the few, widely scattered small communities in the area. For example, the proposed ARSR-3 radar equipment will incorporate the added feature of "Minimum Safe Altitude Warning" to alert a pilot of impending danger.

Illegal drug traffic can be tracked at lower altitudes, thus helping the Department of Justice to discourage such activity along our southern border and into the many remote strips within the proposed coverage area.

Radar "vectoring" can provide direct routing of aircraft. Such procedures will reduce total fuel consumption.

As taken directly from the report [1/] "One of FAA's most important missions is assisting pilots during emergencies. . . . . Radar facilities at Crossman Peak or at Cherum and Harquahala Peaks would provide the radar coverage necessary for emergencies."

We concur and hope to see construction begin soon.

Very truly yours,

Mark Meyers

MARK MEYERS
Aviation Field Representative

MM:m

[1/] Draft, Environmental Statement Crossman Peak Radar Proposal (Page 1-2)

RESPONSE:

Your comments are noted. These benefits are addressed in the draft ES.

1283 Palmwood Street
Boulder City, NV 89005
October 23, 1979

ARIZONA STATE OFFICE
BUR. LAND MANAGEMENT
OCT 22 '79
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Arizona BLM Office
2400 Valley Center Bank
Phoenix, Arizona 85073

Gentlemen:

Regarding the article in the Lake Havasu City Herald of October 5, 1979 concerning the proposed radar station for the FAA, I have some pertinent comments. I am a commercial pilot with a home and part-time residence in Lake Havasu City.

The FAA is squandering taxpayer's money in many ways and this proposed radar station is one of the most unreasonable schemes I am aware of.

First of all, the proposed radar station (for the benefit of local residents and general aviation pilots) is not needed because 98 percent of the time the weather in this area is clear, i.e., visual flight rules prevail. That means we don't need pilots sleeping in the cockpit when flying through the "hole" at Lake Havasu City. General aviation pilots are aware of this "see and be seen situation".

Secondly, the proposed expenditure of $11 million of taxpayer money will only destroy the environment in an area which should be preserved in its pristine state.

I will appreciate any investigation that can be made relative to these comments.

Sincerely yours,

R. S. Oram

R. S. Oram

RESPONSE:

Your position is noted.

Advisory Council On Historic Preservation

1522 K Street N.W.
Washington D.C.
20005

This response does not constitute Council comment pursuant to Section 106 of the National Historic Preservation Act, nor Section 2(b) of Executive Order 11593.

ARIZONA STATE OFFICE
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October 25, 1979

Mr. Robert Buffington
Arizona State Director (911)
Bureau of Land Management
2400 Valley Bank Center
Phoenix, Arizona 85073

Dear Mr. Buffington:

This is to acknowledge receipt of the draft environmental statement for the Federal Aviation Administration's proposal to construct an Air Route Surveillance Facility on Crossman Peak in Mohave County, Arizona on October 5, 1979. We regret that we will be unable to review and comment on this document in a timely manner pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969.

7

4-1 Nevertheless, the Bureau of Land Management is reminded that, if the proposed undertaking will affect properties included in or eligible for inclusion in the National Register of Historic Places, it is required by Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f, as amended, 90 Stat. 1320) to afford the Council an opportunity to comment on the undertaking prior to the approval of the expenditure of any Federal funds or prior to the issuance of any license. The Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800.4) detail the steps an agency is to follow in requesting Council comment.

Generally, the Council considers environmental evaluations to be adequate when they contain evidence of compliance with Section 106 of the National Historic Preservation Act, as amended. The environmental documentation must demonstrate that either of the following conditions exists:

4

1. No properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will not affect any such property. In making this determination, the Council requires:

--evidence that the agency has consulted the latest edition of the National Register (Federal Register, February 6, 1979, and its monthly supplements);

--evidence of an effort to ensure the identification of properties eligible for inclusion in the National Register, including evidence of contact with the State Historic Preservation Officer, whose comments should be included in the final environmental statement.

2. Properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will or will not affect any such property. In cases where there will be an effect, the final environmental statement should contain evidence of compliance with Section 106 of the National Historic Preservation Act through the Council's regulations, "Protection of Historic and Cultural Properties".

Should you have any questions, please call Michael C. Quinn at (303) 234-4946, an FTS number.

Sincerely,

Louis S. Wall
Chief, Western Division
of Project Review

RESPONSE:

4-1 BLM submitted a formal request for review of the project and draft ES to the Arizona State Historic Preservation Officer on October 4, 1979, in compliance with 36 CFR 800. The comment is included in this document in letter number 14. The SHPO's comment has been forwarded to the Advisory Council on Historic Preservation.

United States Department of Agriculture
Soil Conservation Service
3008 Federal Bldg.
230 N. First Ave.
Phoenix, AZ 85025

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October 25, 1979

Glendon E. Collins
Acting State Director
Bureau of Land Management
2400 Valley Bank Center
Phoenix, Arizona 85073

Dear Mr. Collins:

We have reviewed the Crossman Peak Radar Proposal Draft Environmental Impact Statement and offer the following comments:

8 5-1 1. Cut rock slopes are shown at 25:1 but doesn't include a description of geology or rock conditions and its ability to withstand this steep slope. This description should be added. Will rock slides become a potential hazard under future conditions?

5-2 2. Has earthquake considerations been analyzed for the site considering rock and radar proximity?

5-3 3. Will fill slopes be revegetated in some way? If possible, they should be vegetated.

5-4 4. The construction elements of access road and powerline have not been described; however, a description is desirable.

5-5 5. Hydrology evaluation at the radar site and along access road should be made to show need for special drainage considerations.

We appreciate the opportunity to review this impact statement.

Sincerely,

Thomas G. Rockenbaugh
State Conservationist

cc:
Director, Office of Federal Activities (5 copies)
Norman A. Berg, Administrator, SCS, Washington, DC
Kenneth L Williams, Director, SCS-TSC, Portland, OR

RESPONSE:

5-1 Cut rock slopes were shown at .25:1 or 1:4 for illustrative purposes only. Commensurate with good engineering practices, actual slopes would be determined during detailed design engineering to avoid rockslide potential.

5-2 Ability to withstand potential earthquakes is a project design criterion. All structures will be designed to Universal Building Code earthquake zone requirements and requirements of the Earthquake Hazard Reduction Act of 1977 (42 USC 7704).

5-3 Experience in these thin rocky soils has proven revegetation to be impractical.

5-4 Standard access road criteria call for a 16-foot-wide road plus shoulders, with a 10 percent maximum grade. The powerline is described on page 3-15 as a three-phase single-pole 12 kV powerline. Since these are fairly common facilities, we did not deem it necessary to describe each step in construction.

5-5 Hydrology evaluation is also part of the detailed design engineering, to be accomplished after site selection.

Oct 27, 1979

Bureau of Land Management.

6-1 After study of the Crossman Peak Radar proposal it seems that little consideration has been given to future aircraft safety. The scoping and meeting in Lake Havasu was dominated by B.L.M. Fish and Game and other agencies. More the less - with Havasu growing to a city of 50 to 60 thousand - our air transportation along with all air traffic in the area increasing our need for safety is most important. The cost factor to taxpayers would be less with the Crossman location. The wildlife regardless of the outcome will of necessity be disrupted by the growing city. a minimal disturbance of the soil and wildlife and plants.

I feel the report is slanted and if more residents in Havasu had been contacted they would favor the Radar proposal on Crossman Peak. I hope consideration will be given the Crossman location. However it seems the die is cast for other locations.

Thank you

Creason Enterprises
A. W. Creason 602-855-4373
Box 32104, 2054 Greentree Drive Lake Havasu City, Ariz. 86403

RESPONSE:

6-1 See Purpose of and Need for the Action, page 1-1 in the draft ES.

478 Bruce s Corner
Prescott, Arizona 86301

25 October 1979

Mr. Glendon E. Collins
Acting State Director
Bureau of Land Management
Arizona State Office
2400 Valley Bank Center
Phoenix, Arizona 85073

Dear Mr. Collins:

I wish to comment on the features of the Crossman Peak Wilderness study area (unit W 5-1) and the Harquahala Mountains (unit W 2-5) relative to placing the FAA radar facility.

I have earlier submitted material regardingthe Harquahala Mountains with which I am familiar. I have now also visited the area of Crossman Peak, and wish to recommend that the FAA should build its facility at Crossman Peak.

Briefly, the wilderness qualities of the Harquahala Mountains appear superior to those of Crossman Peak: the geological or topographical relief seems more stark and diverse; the vegetation is much more diverse, richer; water should be more reliably available; wildlife should be very much more diverse and abundant.

Additionally, the Harquahala Mountains are clearly of historical significance(the Smithsonian observatory and the old gold mines) and are so located as to be much more accessible to the younger, urban populations of Arizona. All of the features of the Harquahalas make them the more desireable as a study area for our colleges and universities.

On a personal note, I found the Mohave Mountains to be comparatively dull, not as rewarding. The Harquahalas are simply more alluring. I think that those intangible qualities that givewilderness personal meaning are best represented by the Harquehalas in particular.

If the FAA were to build its facility in the Mohave Mountains rather than in the Harquahala Mountains, I would submit that the environmental damages would be the lesser, and the needs of society with respect to recreation and wilderness would be better served.

Sincerely,

Kenneth K. Asplund

Kenneth K. Asplund

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OCT 31 1979
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Due Date

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RESPONSE:

Your position is noted. The effect on wilderness qualities is only one of the many factors to be considered in the decisionmaking process.

BRUCE BABBITT, *Governor*

Commissioners:
MILTON G. EVANS, Flagstaff, Chairman
C. GENE TOLLE, Phoenix
WILLIAM H. BEERS, Prescott
CHARLES F. ROBERTS, O.D., Bisbee
FRANK FERGUSON, JR., Yuma
Director
ROBERT A. JANTZEN

Asst. Director, Operations
PHIL M. COSPER

Asst. Director, Services
ROGER J. GRUENEWALD

ARIZONA GAME & FISH DEPARTMENT

2222 West Greenway Road Phoenix, Arizona 85023 942-3000

November 1, 1979

RECEIVED
B.L.M. AZ. STATE OFFICE
NOV 2 1979
10:00 A.M.
PHOENIX, ARIZONA

Bureau of Land Management
Arizona State Director (911)
2400 Valley Bank Center
Phoenix, Arizona 85073

Re: Draft Environmental Statement - Crossman Peak Radar Proposal (A-5867)

Dear Sir:

The Arizona Game and Fish Department has reviewed the Crossman Peak Draft E.S. and, for the most part, we feel it adequately and accurately describes the project proposal and related environmental impacts. However, we do wish to offer comments on specific portions of the draft document.

11

Page vi, column 2, lines 3-7:

8-1 It is stated that increased access could lead to increased poaching and harassing of mule deer. We suggest bighorn sheep also be included in this sentence.

Page 4-1, column 1, lines 37-40:

8-2 This section relates that the Crossman Peak allotment is only grazed during periods of excess ephemeral forage production. Our helicopter surveys in early May of 1979 found evidence which indicated the range on Crossman Peak was heavily grazed during a time when no permit was in effect. A permit was then issued for the summer of 1979, but when the permit expired, the rancher retained 450 head of cattle on the allotment in trespass.

Page 4-1, column 2, lines 3-7:

8-3 This section indicates the Aguila grazing allotment's higher elevations have been voluntarily

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8

RESPONSE:

8-1 The text has been revised. See Errata Sheet.

8-2 Your comment goes beyond the scope of this environmental statement. The intent of this section was to show the impact of FAA's proposal on livestock grazing. Trespass grazing is a continuing problem on public lands, which BLM controls when we become aware of it. The impacts of livestock grazing will be discussed in future ESs.

8-3 rested from grazing for the past 2 or 3 years. We have found, however, that cattle have been present on Harquahala Peak from the winter of 1978 through the spring of 1979. During the 1979 spring helicopter surveys of this area, an estimated 150 head of cattle were present on Harquahala Mountain.

RECEIVED BLM AZ OFFICE 1979 10:00 AM PHOLNIX, ARIZONA

Page 4-13, Mammals:

8-4 On lines 3-5, it is stated that bighorn sheep "...seasonal movements are restricted to small areas, requiring the availability of water year round." It should be noted seasonal movements of bighorn sheep can be quite pronounced and independent of available free water. Non-breeding ram movement in late winter and early spring can be widespread. One subadult ram marked in the Black Mountains was later observed 20 miles to the north. Movement of bighorn ewes from breeding areas to lambing grounds can also be quite extensive.

8-5 In column 2, reference is made to lambing grounds as depicted on maps 4-4 and 4-5. Harquahala Mts. bighorn distribution is shown on map 4-6, not 4-5. Cherum Peak distributions are provided on map 4-5. Reference is also made on page 5-1 to these same maps.

8-6 Concerning mammal and bird occurrence at the three sites, the striped skunk and Kit fox are found at lower elevations of the Harquahalas; also, the Swainson's hawk,ferruginous hawk, great horned owl, barn owl and screech owl should be added to the species list.

Page 4-14, Reptiles and Amphibians, lines 8-10:

8-7 The impression is left that Gilbert skinks are protected by Arizona law more than the other lizards listed in the paragraph above. This is not the case, as the only protection offered Gilbert skinks is a possession limit of four.

RESPONSE:

8

8-3 Your comment is noted. The withholding of livestock was only voluntary (by the livestock operator) and without benefit of fences.

8-4 Your comment is noted, and the text has been expanded to reflect your concerns. See Errata Sheet.

8-5 The text has been revised. See Errata Sheet.

8-6 The text has been revised. See Errata Sheet.

8-7 According to BLM Manual 6840 - Threatened and Endangered Plants and Animals - (Arizona Supplement - appendix 3), the presence of this species on the State list makes necessary the careful management of available Gilbert skink habitat.

Page 4-19/20, Map 4-6:

8-8 This map depicts lambing grounds of bighorn sheep in the Harquahala Mountains. It may be true that Socorro Peak is the principal lambing site, however, we have information that indicates portions of this mountain range to the east of Socorro Peak are also utilized as lambing grounds.

Page 5-9, Wilderness:

8-9 It is stated that the road on the south face of Harquahala Peak, which leads to the abandoned solar observatory, is regularly maintained and used. However, this road has not been passable for several years. Recent investigations (April 1979) found this road to be impassable. We believe the exclusion of this road from the wilderness study area to be inconsistent with the BLM's wilderness definition of a "road".

Page 5-9, Access Roads:

8-10 A sentence in the middle of the paragraph should be modified to include poaching and harassment of bighorn sheep, as well as mule deer.

Page 5-28, Mitigating Measures:

The section does not adequately provide for compensation for losses incurred to wildlife and wildlife habitat for either the Crossman Peak, or the two site alternative, which includes Cherum and Harquahala Peaks. A more realistic section on mitigation measures would include:

8-11 1. Access to the higher reaches of the Harquahala Mountains should be denied to other than official vehicles. If Crossman Peak is chosen, the access road should also be closed to public use. These measures should help to reduce the impact of increased human activity in the vicinity of bighorn sheep lambing areas or water catchments.

RESPONSE:

8

8-8 Your comment is noted.

8-9 The mining claimant testified in court that he maintained the road at least once a year for access to his mining claims. Also see page 4-25/26 on Errata Sheet.

8-10 The text has been revised. See Errata Sheet.

8-11 The mitigation proposal to open the Crossman Peak or Harquahala Peak access road to the public was based on the recreation benefits the roads would provide and on the belief that local public opposition to closing the roads would be great. The pressure to keep the access road open would be particularly strong in Lake Havasu City, where many residents might view the access road as one of the benefits of locating the radar facilities on Crossman Peak.

8-12 2. If Crossman Peak is selected as the best alternative for construction of the radar facility, the addition of one water catchment will not compensate for the loss of bighorn use of a previously established catchment in prime bighorn sheep habitat. A minimum of three catchments in the nearby Bill Williams Mountains should improve the poorer quality habitat there to support a number of sheep equal to those lost by the removal of the Crossman Peak water.

8-13 3. If a radar facility is constructed at either Harquahala Peak or Crossman Peak, funds should be provided for helicopter time to intensively survey the affected area to determine herd integrity, use patterns and densities of bighorn sheep prior to, during and after construction.

14

8-14 4. Construction of this project should be limited to noncritical times of the year, to ensure undisturbed lambing or summer water use.

8-15 5. Habitat losses at Crossman Peak can be mitigated by the purchase of private land in the nearby Bill Williams Mountains (possibly as much as 11 sections). Removal of the threat of future land development by gaining control of this land by the Arizona Game and Fish Department or the Bureau of Land Management would ensure success of future water developments to improve this bighorn sheep habitat near Crossman Peak. These private lands have no access to them, as yet.

If Crossman Peak is ultimately selected for the radar facility construction site, the Department would consider the access road on the west slope to be of lesser detriment to the future welfare of the bighorn sheep population in the Mohave Mts., than the access road on the east side.

We appreciate the opportunity to review and offer comments on this Draft E.S.

Sincerely,

Robert A. Jantzen, Director

Arthur F. Fuller, Jr.
Arthur F. Fuller, Jr.
Habitat Evaluation Specialist
Kingman Regional Office

AFF:dd

cc: State Clearinghouse 79-80-0063
Planning & Evaluation Branch, Phoenix

RESPONSE:

8

8-12 If Crossman Peak is selected for the radar site, BLM and FAA would be willing to further discuss this mitigation measure, although on the surface some question exists as to how reasonable this mitigation is for the adverse impacts. Even if all parties agreed on the mitigation, BLM and FAA could not firmly commit to this measure until funds are appropriated.

8-13 FAA has indicated a willingness to work closely with AG&FD and BLM to see what can reasonably be done. Without firm cost estimates and some assurance the money will be appropriated by Congress, however, no firm commitment can be made at this time.

8-14 The text has been revised. See Errata Sheet.

8-15 See response to comment 8-12. Acquisition of private lands would depend on appropriation of funds and the willingness of the owners to sell or exchange. BLM has conducted preliminary negotiations for acquiring these lands by exchange, but at this time we cannot tell if this exchange will be consummated.

ARIZONA DESERT BIGHORN SHEEP SOCIETY INC.

P. O. Box 5241 • Phoenix, Arizona 85010

Mr. Karl Kipping
Bureau of Land Management
Yuma District Office
P.O. Box 5680
Yuma, AZ 85364

Dear Mr. Kipping:

9-1 The Desert Bighorn Sheep Society opposes the proposed radar sites on Crossman and Harguahala Peaks. Both projects fall within desert bighorn sheep habitat and would have direct negative impacts on the survival of the sheep population. Sheep numbers in both areas have declined over the past years because of poor land management decisions. It is far cheaper and more effective to stop and reverse the declining trend in a population than to extirpate it and a few years later attempt to reintroduce more sheep. The
9-2 Society urges BLM to abandon these two sites and consider the Cherum Peak site near Chloride as the primary site.

Land managing agencies must fact their responsibilities regarding wise use of natural resources on their lands and accept them today before it is too late. Between burros, domestic livestock, a growing city, and off-road vehicle traffic, the sheep in the Corssman Peak - Aubrey Hills and Buckskin Mountains have been fractured and drastically reduced in number. Though not for certain, the radar site with increased access to a breeding ground and might well be the activity that would extirpate this small population.

We hope that BLM will weigh heavily the possible implications of radar sites on Crossman Peak or the Harguahala Mountains and not add to the further deterioration of this irreplacable and valuable natural resource.

Sincerely,

Jerry P. Petkovsek

Jerry P. Petkovsek,
President

JPP:p

THE ARIZONA DESERT BIGHORN SHEEP SOCIETY, INC.

RESPONSE:

9-1 Your position is noted.

9-2 According to the applicant (FAA), Cherum Peak alone will not provide the required radar coverage.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333

ARIZONA STATE OFFICE
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November 9, 1979

Bureau of Land Management
Arizona State Director (911)
2400 Valley Bank Center
Phoenix, Arizona 85073

Dear Sir:

We have completed our review of the Draft Environmental Impact Statement (EIS) for the Crossman Peak Radar Proposal in Mohave County, Arizona. We are responding on behalf of the Public Health Service and are offering the following comments for your use in preparing the final EIS.

10-1 In discussing the purpose and need for the proposed action, the occurrence of any past air traffic accidents resulting in injury and loss of life that might have been averted by the proposal should be mentioned.

10-2 The potential occupational and public hazards associated with the proposed facility should be addressed in more detail. While the proposal's electromagnetic radiation hazards are discussed in Appendix 2, it may be desirable to include a short discussion of the potential radiation hazards in the body of the EIS with a better depiction of the immediate areas around the antenna that are exposed to the radar beam. The probability of equipment malfunction and exposure of maintenance personnel at the facility to excessive radiation should be discussed.

10-3 A better description of the water and sanitary facilities to be provided for construction and maintenance personnel should be included.

10-4 One of the most significant impacts of the proposal is its conflict with the religious grounds of several Native American communities. Any potential secondary health and welfare effects to the affected Native American communities that could result from the construction of this facility on "sacred" grounds should be disclosed.

Thank you for the opportunity to review this draft EIS. Please send us one copy of the final EIS when it becomes available.

Sincerely yours,

for Frank S. Lisella, Ph.D.
Chief, Environmental Affairs Group
Environmental Health Services Division
Bureau of State Services

RESPONSE:

10-1 When requested to provide this information, FAA was unable to do so.

10-2 The scoping process did not identify radiation hazards as a significant issue, and FAA engineers indicated that such hazards would be reduced to a low level through safety checks designed into the system. We thus did not deem necessary further discussion in the ES.

10-3 We assume that any construction company or Federal agency will provide safe water and sanitary facilities during construction and operation of radar facilities. Water and sanitary facilities must meet State and county health codes.

10-4 We anticipate no such impacts.

National Wildlife Federation

1412 16TH ST., N.W., WASHINGTON, D.C. 20036

202—797-6800

November 7, 1979

ARIZONA STATE OFFICE
BU. LAND MANAGEMENT
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Robert O. Buffington
Arizona State Director
Bureau of Land Management
2400 Valley Bank Center
Phoenix, Arizona 85073

Dear Mr. Buffington:

Having carefully reviewed the environmental statement for the Crossman Peak Radar Proposal and the two-site alternative, the National Wildlife Federation endorses the two-site alternative that involves Cherum Peak near Chlorida in Mohave County and Harquahala Peak near Aguila in Yuma County. Although operation costs, in terms of energy consumption, will be greater at the two-site alternative, the environmental impacts at the two-site alternative are preferred for wildlife, cultural resources, wilderness values, Native American values and economic benefits to local communities. The Federation, in agreement with BLM, feels that the two-site alternative holds the advantage over the Crossman Peak alternative. 17

Additional incentive for the two-site proposal exists if a mining claimant on Harquahala Peak wins the current litigation and constructs his proposed road to the summit. In this case most of the impacts identified for Harquahala Peak would occur whether or not radar facilities are constructed. The two-site alternative would also compound the safety factor by providing secondary coverage for most of the area.

Finally, given that the Bureau finds that a facility and road on Crossman Peak would impair the suitability of the area for wilderness designation, it appears that the Bureau would be violating Section 603 of FLPMA, as interpreted by the Solicitor, if it selected this alternative. Thus, we support the two-site alternative as not only the environmentally, but the legally, preferable alternative.

Sincerely,

Peter Kirby

Peter Kirby, Counsel

William Keenan, Conservation Intern

cc William Reavley, NWF Regional Executive
Gary LaMonica, Arizona Wildlife Federation
Terry Sopher, BLM, Washington, DC

RESPONSE:

Your comments are noted.

SIGNOFF

OMB Approval No. 29-R0218

FEDERAL ASSISTANCE

1. Type Of Action (Mark appropriate box): ☐ Preapplication ☐ Application ☐ Notification Of Intent (Opt.) ☐ Report Of Federal Action

2. Applicant's application: a. Number: b. Date (Year Month Day)

Leave Blank: NOV 14 1979

3. State application identifier: a. Number: AZ 79-30-0063 b. Date Assigned (Year month day): 19 79 10 05

JoAnn Youngblood

4. Legal Applicant/Recipient
- a. Applicant Name: Bureau of Land Management
- b. Organization Unit: Arizona State Office
- c. Street/P.O. Box: 2400 Valley Bank Center
- d. City: Phoenix
- e. County: Maricopa
- f. State: Arizona
- g. Zip Code: 85073
- h. Contact Person (Name & telephone no.): Karl L. Kipping (602) 726-6300

5. Federal Employer Identification No.

6. Program (From Federal Catalog): a. Number: 15.999 b. Title: Unknown

Dept. of Interior, BLM

7. Title and description of applicant's project: Crossman Peak Radar Proposal-Draft Environmental Statement

The Fed. Aviation Admin. proposes to construct Air Route Surveillance Radar (ARSR) facilities either on Crossman Peak, near Lk. Havasu City in Mohave Co., Az or at 2 sites (1) on Cherum Pk. near Chloride in Mohave Co., Az and (2) on Harquahala Pk., near Aguila in Yuma Co., Az. All proposed sites are on public land.

8. Type of applicant/recipient: A-State, B-Interstate, C-Substate District, D-County, E-City, F-School District, G-Special Purpose District, H-Community Action Agency, I-Higher Educational Institution, J-Indian Tribe, K-Other

(Specify) Federal — Enter appropriate letter: k

9. Type of assistance: A-Basic Grant, B-Supplemental Grant, C-Loan, D-Insurance, E-Other — Enter appropriate letter(s): e

10. Area of project impact (Names of cities, counties, states, etc.): Crossman Pk near Lk Havasu City, Cherum Pk near Chloride, Mohave Co Harquahala Pk near Aguila in Yuma Co

11. Estimated number of persons benefiting

12. Type of application: A-New, B-Renewal, C-Revision, D-Continuation, E-Augmentation — Enter appropriate letter: a

13. Proposed Funding

a. Federal	$	.00
b. Applicant		.00
c. State		.00
d. Local		.00
e. Other	1	.00
f. Total	$ 1	.00

14. Congressional Districts Of: a. Applicant b. Project

15. Type of change (For 12c or 12e): A-Increase Dollars, B-Decrease Dollars, C-Increase Duration, D-Decrease Duration, E-Cancellation, F-Other Specify: — Enter appropriate letter(s)

16. Project Start Date (Year month day) 19

17. Project Duration Months

18. Estimated date to be submitted to federal agency (Year month date) 19

19. Existing federal identification number

20. Federal agency to receive request (Name, city, state, zip code)

21. Remarks added ☐ Yes ☐ No

Section I - Applicant / Recipient Data

22. The Applicant Certifies That

a. To the best of my knowledge and belief, data in this preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.

b. If required by OMB Circular A-95 this application was submitted, pursuant to instructions therein, to appropriate clearinghouses and all responses are attached:

	No response	Response attached
(1) Arizona State Clearinghouse	☐	☐
(2) Region III Clearinghouse (NACOG)	☐	☐
(3) Region IV Clearinghouse (Dist IV)	☐	☐

23. Certifying representative: a. Typed name and title b. Signature c. Date signed (Year month day) 19

Section II - Certification

24. Agency name

25. Application received (Year month day) 19

26. Organizational Unit

27. Administrative office

28. Federal application identification

29. Address

30. Federal grant identification

31. Action taken: ☐ a. Awarded ☐ b. Rejected ☐ c. Returned for amendment ☐ d. Deferred ☐ e. Withdrawn

32. Funding

a. Federal	$	.00
b. Applicant		.00
c. State		.00
d. Local		.00
e. Other		.00
f. Total	$	.00

33. Action date (Year month day) 19

34. Starting date (Year month day) 19

35. Contact for additional information (Name and telephone number)

36. Ending date (Year month day) 19

37. Remarks added ☐ Yes ☐ No

38. Federal agency A-95 action

a. In taking above action, any comments received from clearinghouses were considered. If agency response is due under provisions of Part 1, OMB Circular A-95, it has been or is being made.

b. Federal Agency A-95 Official (Name and telephone number)

Section III - Federal Agency Action

424-101

Standard Form 424 Page 1 (10-75)

Prescribed by GSA, Federal Management Circular 74-7

The following agencies responded through the Arizona State Clearinghouse. None of the comments required responses.

	Preference/Comments
Comments Noted:	
a. Arizona State University Center for Public Affairs	None stated.
b. Department of Economic Security	Cherum and Harquahala Peaks
c. State Land Department	None stated.
d. Arizona Game & Fish Department	None stated.
No Comments:	
e. Department of Health Services	None stated.
f. Arizona Power Authority	None stated.
g. District IV Council of Governments	None stated.
h. Department of Transportation	None stated.
i. Northern Arizona (Region III) Council of Governments	None stated.
j. Agriculture and Horticulture Department	None stated.
k. Office of Arid Land Studies, University of Arizona	None stated.
l. Indian Affairs Commission	None stated.
m. State Water Commission	None stated.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WESTERN REGION
P. O. BOX 92007, WORLDWAY POSTAL CENTER
LOS ANGELES, CALIFORNIA 90009

ARIZONA STATE OFFICE
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Mr. Glendon E. Collins
Acting Arizona State Director (911)
2400 Valley State Center
Phoenix, AZ 85073

Dear Mr. Collins:

Enclosed are the FAA comments to the Draft Environmental Statement, Crossman Peak Radar Proposal.

Crossman Peak remains the option preferred by FAA because it provides the necessary radar coverage, is the most economical solution to the aviation safety problem, and would consume the least amount of electrical energy and fuel to operate. It appears to us that Crossman Peak would present less environmental impact problems than the two-site alternate.

Our enclosed comments express the FAA's views which are not included in the environmental assessment.

We appreciate your support in seeking a solution to our radar coverage problem in southwest Arizona. We will work closely with your office to resolve any technical details that develop during the engineering phase of this project.

Sincerely,

W. R. FREHSE
Chief, Airway Facilities Division, AWE-400

Enclosures

FAA's comments and BLM's responses are on the following pages.

DRAFT ENVIRONMENTAL STATEMENT
CROSSMAN PEAK RADAR PROPOSAL
FAA COMMENTS

Summary, Proposed Action and Alternative

Environmental Consequences

13-1 Page vi, Paragraph 4, 1st and 2nd Sentences: The statement, as written, does not indicate the degree of disturbance or displacement. The predominant quantity and species of birds and reptiles which will be displaced will return after construction is complete. The number of permanently displaced species will be relatively small.

13-2 3rd Sentence: The statement that the radar facilities would "eliminate bighorn lambs" is not supported either by the report nor maps 4-4 (Crossman Peak) and 4-6 (Harquahala Mountain). The "lambing area" involved on Crossman Peak appears to be no more than 5% of the total lambing area shown on map 4-4. The lambing area on Harquahala Mountain is nearly 8 miles from the proposed site or access road and should not be significantly impacted.

20 13-3 Page vi, Paragraph 5, 2nd Sentence: The statement that the installation "would disfigure the mountain summit and block access to it" is misleading. The report does not support the claim that the radar site is on or near a Native American religious site. Conversely, the FAA road will provide easy access for Native Americans to visit the mountain.

13-4 Page vi, Paragraph 7, 3rd Sentence: On Crossman Peak, the statement that "construction would reduce the opportunity for solitude and primitive recreation", failed to define the fact that a city of 16,000 people on 32 square miles of land on the west side of the mountain exists and has significant impact on "solitude". Lake Havasu City is growing and is expected to reach the population of 80,000 in the future. Recreational use of this mountain will also increase. We doubt that such an impact on wilderness values can be ignored.

13-5 This sentence further states that the FAA installation "would disrupt and diminish bighorn sheep hunting in the surrounding game management unit." This is inconsistant with preservation of an animal that is slated to become an endangered specie by the Arizona State Game and Fish Department. From the data included in the report, hunting on Crossman Peak is minimal at best, and is not a significant impact.

13-6 Page vi, Paragraph 8 and 9: These paragraphs state negative impacts due to the access road being open to the public. Most of the stated negative impacts would be minimized with restricted access to FAA personnel only. Neither the report, nor this summary reviews the possibility or desirability of "restricted access."

RESPONSE:

13-1 This is a summary statement. More detailed information is presented in section 5. The statements are based on information gathered and analyzed by qualified wildlife biologists. See page 5-1.

13-2 This statement is based on the professional opinions of recognized wildlife experts for the State of Arizona (AG&FD), supported by opinions of BLM wildlife biologists. The elimination of bighorn lambs on Crossman Peak would not result so much from the physical disturbance of lambing grounds as from the indirect impacts of increased human activity from construction, maintenance, and increased access. Also see response to comment 8-8.

13-3 Although the FAA road would provide easy access for visitors to the mountain, access to the summit would be blocked by a fence. See pages 4-14 and 5-7 of the draft ES for a discussion of the religious significance of Crossman Peak.

13-4 The location of Crossman Peak in relation to Lake Havasu City may enhance Crossman Peak's value as a wilderness area because of its accessibility to a large number of people. The determination of the Crossman Peak Wilderness Study Area has been in accordance with the BLM Wilderness Inventory Handbook, published by the Department of the Interior in 1978.

13-5 Hunting in Arizona is controlled by the AG&FD. The low statewide bighorn sheep population is reflected in the low number of hunting permits issued for bighorn sheep and the high value hunters place on bighorn trophies and bighorn permits. Since so few can hunt bighorn, diminishing of any bighorn hunting would be significant.

13-6 See response to comment 8-11.

13-7 Page vi, Paragraph 10 states that the radar facility would be visible "from much of the Crossman Peak Wilderness Study Area and would require the construction of a new access road into the center of the area." There is a great percentage of the Crossman Peak Wilderness Area from which neither the proposed access road nor the site can be seen due to the terrain of the mountain. Also, there are four roads "cherry stemmed" into the center of the proposed Crossman Peak Wilderness Area. One is approximately 1/4 mile from the proposed site. Most of the existing roads are more visible than the proposed road and site. The statement that "the facility and road would impair the suitability of the area for preservation as wilderness" is accurate as far as it goes. The fact that the west face of Crossman Peak provides marginal wilderness values due to Lake Havasu City and the present use of this area by local residents and their many off-road vehicles, mining interests, etc, is not included.

If Lake Havasu City impact is included in the discussion, the area between the crest of Crossman Peak and Lake Havasu City could logically be eliminated from the Wilderness Area designation. This would allow the inevitable recreation growth that is bound to take place as Lake Havasu City population increases in the future.

13-8 Page vi, Paragraph 11: This paragraph states that BLM is obligated to approve all communication applications on Crossman Peak or Harquahala Mountain if FAA is allowed to construct a road and radar site on BLM land. Remote sites established by FAA in the past have not established legal precedent for others to co-locate at radar locations. FAA Justification of air safety and the protection of the lives of the flying public traveling over or into this area daily should rate high in priority. Approval of other communication facilities near the FAA radar site should required equal justification to obtain BLM permits.

13-9 Page vii, Mitigation, Paragraph 5, Game Water Catchment for Crossman Peak or Harquahala Mountain: FAA and BLM have not discussed location, size, or the type of facility involved nor has the need been established. Any location away from the access road or radar site would require additional road and additional disturbed area to contruct the water facility suggested. This could create more problems than the project may be worth. Possibly this item should be held in abeyance until a site decision and details are agreed upon by BLM and FAA.

13-10 Page vii, Last Paragraph, Environmentally Preferred Alternative: The report, as written, does not totally support the two-site conclusion. It is understood that BLM preference leans toward the two site alternate, however, the environmental impact on Wildlife, Cultural Resources, Wilderness Values, Native American Values, and U. S. Government Resources which the public taxpayers must furnish are more than double for the two sites involved versus the single Crossman Peak site. Because the Environmental Statement must consider all aspects of the impact involved, the weight of all facts presented seem to support equally the Crossman Peak location for the FAA facility.

RESPONSE:

13

13-7 The wilderness inventory was conducted in accordance with the BLM Wilderness Inventory Handbook, which recognized roads existing before the wilderness inventory. The impact of these roads was not considered great enough to eliminate Crossman Peak from the wilderness inventory process. The proposed Crossman Peak access road, on the other hand, would involve construction of a new road within a wilderness study area, which is prohibited by the Federal Land Policy and Management Act and the BLM Interim Management Policy and Guidelines for Wilderness Study Areas until a decision on wilderness designation is made.

13-8 This paragraph does not say that BLM is obligated to approve all communication applications but rather that the FAA site would set a precedent for communications facilities. BLM has consistently denied application for such sites on Crossman Peak because of the anticipated consequences discussed in section 5 of the draft ES. Permitting FAA facilities but denying private applicants would be considered discriminatory against nongovernment applicants.

13-9 FAA has been aware of this proposed mitigation since early in the project. Size, location, and design will be determined by qualified wildlife biologists according to need. If necessary, equipment and supplies may be ferried to construction sites by helicopter. All reasonable mitigation measures will be included in stipulations attached to the decision.

13-10 We do not agree that the environmental impact on wildlife, cultural resources, wilderness values, and Native American values for the two-site alternative would be more than double that for the Crossman Peak alternative.

13-11 Page 3-15: Cost of Radar Facilities and Benefits in Coverage: As stated in the 4th paragraph, radar benefits are "extremely difficult to quantify". The approach used by the BLM Economist, using line-of-site area, does provide a cost per square nautical mile but in essence proves basically that two radar sites cost more than one. Not included in his study is the ever increasing probability of a mid-air collision in this area without radar and the resultant cost of the loss of life and property should an accident occur. The life and property loss could amount to hundreds of millions of dollars, depending upon the aircraft and number of people involved, and is the primary justification of the FAA Air Traffic Control System. The cost of one accident will more than off-set any other cost included in this study and is the true cost benefit of the project.

13-12 Page 4-1, Paragraph 6: This paragraph states that the Lake Havasu City residents are concerned that the FAA radar site would "generate rapid industrial or residential growth." Historically, FAA radar installations, at locations such as Cascade, Idaho, Grand Junction, Colorado, Lovell, Wyoming, and other communities of this size, have had little impact on the nearby communities. FAA experience supports the statement on Page 5-23, Paragraph 2, "None of these impacts, however, would be significant to the local economies of the communities involved." The seven families added to Lake Havasu City would have minor influence on industrial or residential growth.

13-13 Page 4-22, Paragraph 3: While the wilderness area boundaries include only primitive, relatively undeveloped land, the description of the Crossman Peak Wilderness Study Area (WSA) totally ignores Lake Havasu City immediately adjacent to the WSA. The solitude on the West slope of Crossman Peak does not exist due to close proximity of the city.

13-14 The "several water sources" in the report, are intermittent and dry up during frequent periods of drought. During these periods of drought, deer, big horn sheep, horses, and other large animals are forced to migrate to the Colorado River because of the lack of water on Crossman Peak. This information seems to be missing from this paragraph.

13-15 Page 4-27, State Protected Species: A fairly extensive survey of Crossman Peak, Harquahala Mountain, and Cherum has been made by BLM personnel. None of the listed endangered plants were observed as a result of the BLM survey and this fact would be of interest in this paragraph.

13-16 Page 4-27, Federal Threatened or Endangered Species (Proposed List), Paragraph 3: This paragraph should state that "one or more of these species may be discovered" but that the probability is small.

RESPONSE:

13

13-11 Benefits of radar coverage are discussed in section 1 of the draft ES, Purpose of and Need for the Proposed Action, and on page 3-15. The benefits would occur under either the Crossman Peak alternative or the two-site alternative.

13-12 We agree.

13-13 See response to comment 13-4.

13-14 The water sources referred to on page 4-22 are either permanent or semi-permanent--drying up only during extremely long droughts.

13-15 Many plants protected by Arizona State law were located at all three sites.

13-16 We believe that the draft ES is accurately written.

13-17 Page 4-28, last two paragraphs: While the County Planning Commission plans to designate recreational zoning in the remote areas, their legal jurisdiction controlling Government Land is questioned. Historically, FAA Radar Sites in remote areas have enhanced the public recreational use due to access roads being built where none presently exist. The accessibility thus provided has made the development of recreation areas by BLM and U.S. Forest Service economically practical, and beneficial public utilization of the area has been enhanced.

13-18

13-19 Section 5, Environmental Consequences, Page 5-1, Wildlife: This paragraph should be modified to qualify the extent of disturbance. As written, extensive disruption will result from FAA construction, while, in fact, considering the area of up to 65,000 acres surrounding the FAA facility, relatively few animals, birds, or native plants will be affected directly by the FAA facility.

Page 5-1, Mammals, Paragraph 1 and 2: The Arizona Game and Fish Department statements are subject to question. These paragraphs should be modified to reflect that less than 5% of the lambing area shown on Map 4-4 would be affected at Crossman Peak and that the Harquahala Mountain lambing area, as shown on Map 4-6, is over eight miles from the proposed radar site. It is questionable if the impact on the big horn lambing is as extensive as stated by the Arizona Game and Fish Department (AG&FD). In addition, the closest game water catchment installed by AG&FD at Crossman Peak is over one mile away from any construction, and its use can not be significantly affected.

13-20 We have been told by environmentalists that the growing population of Lake Havasu City has had the most impact on wildlife at Crossman Peak. The radar site will have little affect on wildlife after construction is completed and only moderate impact during construction. The affect of the radar site at Harquahala Mountain is obviously minimal because of the distance separating the site and lambing area (8 miles). Our research of bighorn sheep at Crossman Peak indicates that the herd migrates between Crossman and the Aubrey Hills to the southwest. In fact, the Aubrey Hills provide water and terrain more suitable than Crossman Peak for bighorn sheep. We note that the State of Arizona has created Lake Havasu State Park, which includes the Aubrey Hills. The 200 campsites established in this big horn sheep area are reported to have little effect on the sheep.

It is also interesting that AG&FD is re-establishing Desert Bighorn Sheep successfully in Arivipa Canyon. Considering that California and Arizona Game and Fish Departments are successful in re-establishing bighorn sheep herds in more suitable areas than Crossman Peak, it is difficult to understand the emphasis being applied to the relatively few sheep at Crossman Peak.

RESPONSE: **13**

13-17 BLM policy, as stated in the Federal Land Policy and Management Act, Title II, Section 202(c)(9), is that BLM land use plans should be as consistent as possible with State and local land use plans.

13-18 The draft ES discusses both the beneficial and adverse impacts of access roads on outdoor recreation and other resources.

13-19 This statement provides a summary of general impacts for the areas. The extent of impact on wildlife would vary from the highly site specific to those occurring broadly throughout the areas.

13-20 See response to comment 13-2.

13-20 Cont. In addition, our past experience with mountain top radar installations, in the nine western states, has proven that the wildlife displaced during construction move back into the area in surprisingly short time and in a manner that requires a fence around the site to keep wildlife out. We therefore question the impact opinions expressed in this report regarding the proposed installation.

13-21 Page 5-3, Table 5-1, Wildlife, Crossman Peak, Paragraph 2: This paragraph should reflect the estimated percentage of the designated big horn lambing area affected and note that the referenced water catchment is over one mile from any construction.

13-22 Page 5-3, 2-Site Alternate, Wildlife, Harquahala Mountain: Include the fact that 8 miles separate the lambing grounds and the proposed FAA radar site. Also, the access to the closest water will not be affected nor will the road be fenced to prevent wildlife from crossing the road.

13-23 Page 5-3, Native Americans, Crossman Peak: Neither the proposed radar site nor the access road will disfigure the crest of Crossman Peak nor block access to this "sacred site." All site construction is to the east of the mountain top. The road would actually provide the Indians access to their site not now possible. Further, there have been no historical

13-24 artifacts located by BLM or FAA in the ten years this site has been in question. This paragraph should include this information.

13-25 Page 5-3, Social Attitudes, Crossman Peak: When reviewing the BLM record of public response at the "scoping meetings" and other public response receive by BLM, we counted nearly a split in public opinion. There was no predominant reason stated either "for" or "against" the radar installation. We believe a fair appraisal of public response is that the few comments received were insufficient to determine the sentiment of the community regarding the FAA facility on Crossman Peak.

13-26 Page 5-4, Table 5-1, Recreation, Crossman Peak: The statement that the radar site "might disrupt or eliminate bighorn sheep hunting in the surrounding game management area" is inconsistent with the AG&FD concern for elimination of the bighorn sheep specie.

13-27 Page 5-5, Table 5-1, Land Use Plan and Policy - All Sites: The statement does not speak to priorities that must be considered. FAA is concerned with air safety to the flying public. This must be considered equal to or higher priority than telephone, radio, or television communication sites for commercial application. FAA does not agree that a radar site sets precedent that would or should allow any other applicants to further develop communication installations without a valid justification. Further, many types of communications installations are not compatible with radar and could not operate if located near the FAA site. Unwanted development could be controlled by restricting the use of the road to the Government.

RESPONSE:

13

13-21 See response to comment 13-2.

13-22 See response to comment 8-8.

13-23 According to development plans submitted by FAA (see pages 3-19/20) a 6-foot-tall chain link fence would restrict access to the summit of Crossman Peak. This fence would provide site security and protect against radiation hazards.

13-24 See paragraph 1 on page 4-27.

13-25 This assessment of public attitudes is summarized from a report by the ES team social scientist, which was based on field interviews with 37 citizens at large and 40 agency and organization representatives. (See appendix 1.) Since the issue of public attitudes was not raised at the scoping meetings, it was summarized rather than discussed at length in the draft ES.

13-26 See response to comment 13-5.

13-27 The draft ES assesses consequences of the proposal, not priorities. See response to comment 13-8.

13-28 Page 5-7, Birds: The paragraph is applicable only to the disturbed area, which is infinitesimal when considering the area over which these birds must range. Also, Crossman Peak and Harquahala Mountain access road routes affords relatively sparce vegetation and cover for birds and no vegetation at the proposed radar sites. The impact to birds would be minimal, not major as this paragraph states.

13-29 Page 5-7, Reptiles and Amphibians: This paragraph stresses the negative impact to small animals. For instance, a dozer or grader on the road construction will have little chance of "crushing" most fleet-footed small animals and reptiles present. The amphibian animals are very limited in number at any of the proposed sites due to the lack of open water. Neither the road routes nor sites are close to amphibian habitat. Reference to the tortoise or Gilbert Skink is strictly a "qualified maybe" because none were sighted. This paragraph should include a statement to indicate the minimal impact rather than state that a significant problem may exist.

13-30 Page 5-7, Indirect Effects and their Significances: Poaching and plant destruction are presently taking place at all sites due to uncontrolled off-road FWO vehicles and their operation within these desert areas. The new road would channel traffic and would tend to decrease plant destruction and soil erosion because uncontrolled jeep trails would not be developed. The FAA road design will provide controlled drainage that will minimize erosion. With a gravel surfaced road design and controlled drainage, plants will benefit and thrive where none exist presently. Poaching would be discouraged because of FAA manning at the radar site. The overall impact of the FAA project may well be positive rather than negative as stated.

13-31 Page 5-7, Federal Threatened or Endangered Animal Species: A sentence should be added indicating the BLM Wilderness Study Inventory Team did not observe any species on the Federal or State lists.

13-32 Page 5-7, Impacts on Unique Habitat and Natural Areas: The first sentence states that the proposed radar site at Crossman Peak is in a "ram-staging area"; map 4-4 indicates the area as "lambing ground." On-site evidence would indicate both designations are questionable. Nevertheless, review of both map 4-4 and 3-8 shows that only a very small area, less than 10 acres, of the total 18,560 acres, or 0.005% of the bighorn area is influenced by the site construction. There are at least 2.9 million acres of desert land similar to Crossman Peak reserved in southwest Arizona and southeast California for bighorn sheep. In our view, the 30-to-50 bighorn sheep that are rarely sighted on Crossman Peak have more than enough area to migrate into without difficulty if FAA would disturb them or force such a move. If a water well can be developed for the site, a source of water could be added to Crossman Peak which would,

RESPONSE: **13**

13-28 We agree that the impacts to birds would not be significant. Since impacts to wildlife was a concern brought out in the scoping process, we felt impacts to birds should be addressed.

13-29 The text has been revised. See Errata Sheet.

13-30 Development of a new road would not eliminate existing ORV use but would provide additional access for ORVs. Also see page 5-7, paragraph 7 regarding benefits to vegetation and animals.

13-31 The wilderness inventory team was not looking for federally listed threatened and endangered animal species. Since none of the alternatives would impact any of these species, the statement is adequate as written.

13-32 See response to comments 13-2 and 13-31.

13-32 in fact, benefit the bighorn beyond all negative impacts stated. The statement that the Harquahala site would impair bighorn sheep and Gilbert Skink habitat should also indicate none were sited in an extensive inventory at this location by the BLM Wilderness Area Inventory Team.

13-33 Page 5-7, Native Americans, Paragraph 3: The statement that Crossman Peak would be disfigured by the FAA facility is in error. From Ft. Mohave and the Colorado River only a portion of the radome will be visible. Further, the proposed access road will not "restrict access" to Crossman Peak, as stated, but rather will provide access to Indians who otherwise might not be able to walk to the crest of the peak. The "sacred area" could be protected by declaration of its historic significance and preserved as the Colorado River Indian Tribal Museum would desire, thus negating the objection to the radar site.

It is interesting to note that Native Americans have similar objections to Harquahala Mountain and Cherum Mountain as well. They are, in fact, "highly sensitive about any type of impact whatsoever when mountains or prominent hills are involved." FAA radar must be located on high ground to operate satisfactorily. We, therefore, believe that careful site location and preservation of historic or "sacred areas" can make welcome our presence at mountain top sites as well as protect Indian Tribal areas of religious significance.

13-34 Page 5-8, Visual Resources: The artists concept of the radar site and road is out of perspective in figures 5-4, 5-5, 5-6 and 5-8. In addition, figure 5-5 depicts the radar site on the north side of Cherum Peak rather than the south side. From Windy Point Campground only a portion of the radome will be visible. The road probably will be constructed on the east slope and only the final part of the road will be visible, as shown, near the top. The proportions of the facility as shown are much larger than the actual size of the facility.

Figure 5-6 is completely out of proportion as the radar site is depicted.

We believe figure 5-8 is in error. The Harquahala Radar Site can not be seen from U.S. Highway 60.

13-35 Page 5-9, Wilderness, Paragraph 2: As previously stated, 90% of the proposed road is located on the west slope of Crossman Peak, the same side as Lake Havasu City. This side of Crossman Peak is marginal as a Wilderness Area because of the influence of the highly populated area to the west as well as the encroachment of a large number of off-road vehicles from Lake Havasu City. The portion of the road on the east slope will be visible to some degree, as some of the existing roads now are. Over a period of time the new construction will weather and will blend into the background. The buildings and tower proposed are planned to be painted a color chosen by BLM to blend into the background and reduce the visual impact on the Wilderness Area to the east.

RESPONSE:

13-33 See response to comments 13-3 and 13-23.

13-34 Figures 5-7 and 5-8 are reversed. See Errata Sheet. The ES team attempted to depict the facilities as accurately as possible from information supplied by FAA engineers. If the visual impact is less than that depicted in the figures, then the figures must be considered to represent a "worst case."

13-35 See response to comment 13-4.

13-36 Page 5-9, Access Roads: The possibility of restricted access to the sites has not been discussed as an alternate. If poaching, harassment of wildlife, destruction of plants, etc., are of primary concern, the restricted use of the road could be arranged by BLM to minimize this impact.

13-37 Page 5-24, Land Use Plans, Policies, and Controls, Paragraph 3: We question the legal accuracy of the statement that the Mohave County Planning and Zoning Commission and the Board of Supervisors control Government use of Government Land. This should be clarified prior to the Final Environmental Report.

13-38 Page 5-34, Aviation Safety: A statement covering Aviation Safety should be added. In the interest of Aviation Safety, Crossman Peak Site provides FAA with the required radar coverage, however, the two-site alternate provides equal coverage. Either Crossman Peak or the two-site alternate must be approved to fulfill the Air Safety requirements of this area. A statement should be added to cover this point.

Page 5-34, Resources and Energy: A statement should be added indicating that the two-site alternate to Crossman Peak will require twice the resources to construct the two radar sites and will consume twice the electrical energy to operate. Further, two sites will consume twice the fossil fuel.

13-39 The conclusion statement should indicate consideration of the Air Safety aspect and the Resources/Energy consumption. It should be stated that FAA prefers the Crossman Peak site rather than the two-site alternate because one site fulfills the priority of Air Safety and has less economical, resource, and energy impact than the two site alternate. Construction of two radar sites will disturb more wildlife and plant life than one. The visual impact of the proposed Crossman Peak site will be noticed by more people due to proximity of Lake Havasu City and the Colorado River recreation area. The two alternate sites are located in far more remote areas that are not near large communities and will have less visual impact. In FAA's judgment, considering all environmental impacts, the proposed Crossman Peak radar site would create less negative impact now and in the future than would the two site alternate.

RESPONSE:

13-36 See response to comment 8-11. This comment seems inconsistent with your comments 13-18, 13-23, and 13-33.

13-37 The text has been revised. See Errata Sheet. Also see response to comment 13-17.

13-38 Other than the no-action alternative, any alternative analyzed must fulfill the purpose and need for the project (air safety).

13-39 The information provided to the ES team economist and used in preparing tables 3-2 and 3-3 indicated that some construction supervisors and maintenance personnel might be used at both sites under the two-site alternative. Otherwise, we feel the points you address here are adequately addressed elsewhere in the draft ES.

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November 29, 1979

Glendon E. Collins
Acting State Director
Arizona State Office
Bureau of Land Management
U.S. Dept. of the Interior
2400 Valley Bank Center
Phoenix, Arizona 85073

Re: Crossman Peak Air Route
Surveillance Facility Proposal
(Draft Environmental Statement)
DOI-BLM, FAA

Dear Mr. Collins:

I have now reviewed the Draft Environmental Statement on this proposed undertaking and have the following comments regarding the cultural resource assessment and compliance aspects of the proposal:

1. I concur with the BLM's determination that construction of a radar facility on Harquahala Peak would not have an adverse effect on the values which qualified the Harquahala Peak Observatory for inclusion on the National Register of Historic Places. I further agree that the beneficial effect of having an around-the-clock staffed facility near the observatory to discourage vandalism tends to offset any potential adverse effects that the new facility might have on the historic property's setting.

2. I note that construction of the facility at either the Crossman Peak or the two-site alternative (Cherum Peak and Harquahala Peak) may result in conflict with the Native American religious values concerning both areas. Although I agree with the BLM's evaluation that lesser impacts will occur to these values if the two-site alternative is selected, there may still be a need to develop further mitigation measures to resolve potential value conflicts. 14-1

3. It appears that other cultural resource values will not be much affected at either the Crossman Peak or the two-site alternative and I note that if the project is implemented, the BLM and the FAA will be following the cultural resource compliance procedures as set forth in 36 CFR Part 800. That seems satisfactory to me and I will be happy to work with the BLM and the FAA once a decision is made to construct the facility.

CONSERVING AND MANAGING ARIZONA'S HISTORIC PLACES, HISTORIC SITES, AND RECREATIONAL, SCENIC AND NATURAL AREAS

14

Your continued cooperation is appreciated.

Sincerely,

for JAMES E. AYRES
State Historic Preservation Officer

JEA:bh
Enc.

14-2 P.S. I have also enclosed a copy of the SHPO's initial comments on this proposed undertaking which was sent to the BLM Yuma District Office on 3/22/79.

RESPONSE:

14-1 The ES Team was unable to identify appropriate mitigation measures for these impacts. We will be happy to consider any suggestions.

14-2 The attached letter was considered in the draft ES.

ERRATA

Page vi

Column 2

ENVIRONMENTAL CONSEQUENCES (comment 8-1)
Paragraph 2

Line 6 - Add: "and bighorn sheep" after mule deer

Page 4-13

MAMMALS (comment 8-4)
Paragraph 1

Change to read: - Desert bighorn sheep inhabit isolated rough canyon and mountain terrain in the Southwest. In each population, seasonal movements may vary in distance from year to year and may be widespread within the range of the population. Although desert bighorn sheep movements can be independent of free water, game water catchments constructed by Arizona Game & Fish Department (AG&FD) provide available water to bighorn sheep as well as many other wildlife species.

Column 2
Paragraph 1 (comment 8-5)

Line 4 - Change map 4-5 to map 4-6.

Paragraph 2

Insert - Since the construction of Arizona Highway 95 and Lake Havasu City (in early 1960s), the range of desert bighorn sheep near Crossman Peak has been divided so that bighorn sheep reside mainly on higher slopes of the area. The bighorn population on Crossman Peak has been estimated to be 30 (Beaudry, 1979) and is considered in a declining status by AG&FD. Residing desert bighorn sheep on Harquahala Peak are less influenced by human disturbances. AG&FD estimates this sustaining population to be 45 (Weaver, 1979).

Paragraph 5 (comment 8-6).

Line 5 - Change to: badger, gray fox, kit fox, and striped skunk on lower slopes and washes.

ERRATA (CONT.)

Page 4-14

BIRDS (comment 8-6 cont.)
Paragraph 2

Change to: The red-tailed hawk and turkey vulture are commonly seen near the study areas. The American kestral, prairie falcon, golden eagle, screech owl, great horned owl, and barn owl are less commonly seen species.

THREATENED OR ENDANGERED ANIMAL SPECIES
Paragraph 1

Line 8 - Change to: ...base of the Mohave Mountains

Line 9 - Delete: east of Crossman Peak

Page 4-25/26

Replace map 2-8 with revised map 2-8 (following page). This replacement is necessary because, after publication and the final decision on the wilderness study area (WSA), field checking and interviews with a rancher and a miner revealed that Blue Tank Road is a road according to the BLM definition. Revised map 2-8 thus shows additional land whose exclusion from the WSA was made necessary by the existence of Blue Tank Road.

Page 5-7

REPTILES AND AMPHIBIANS (comment 13-29)
Paragraph 1

Line 2 - Delete: significantly

Line 9 - Delete: seriously

Page 5-9

ACCESS ROADS (comment 8-10)

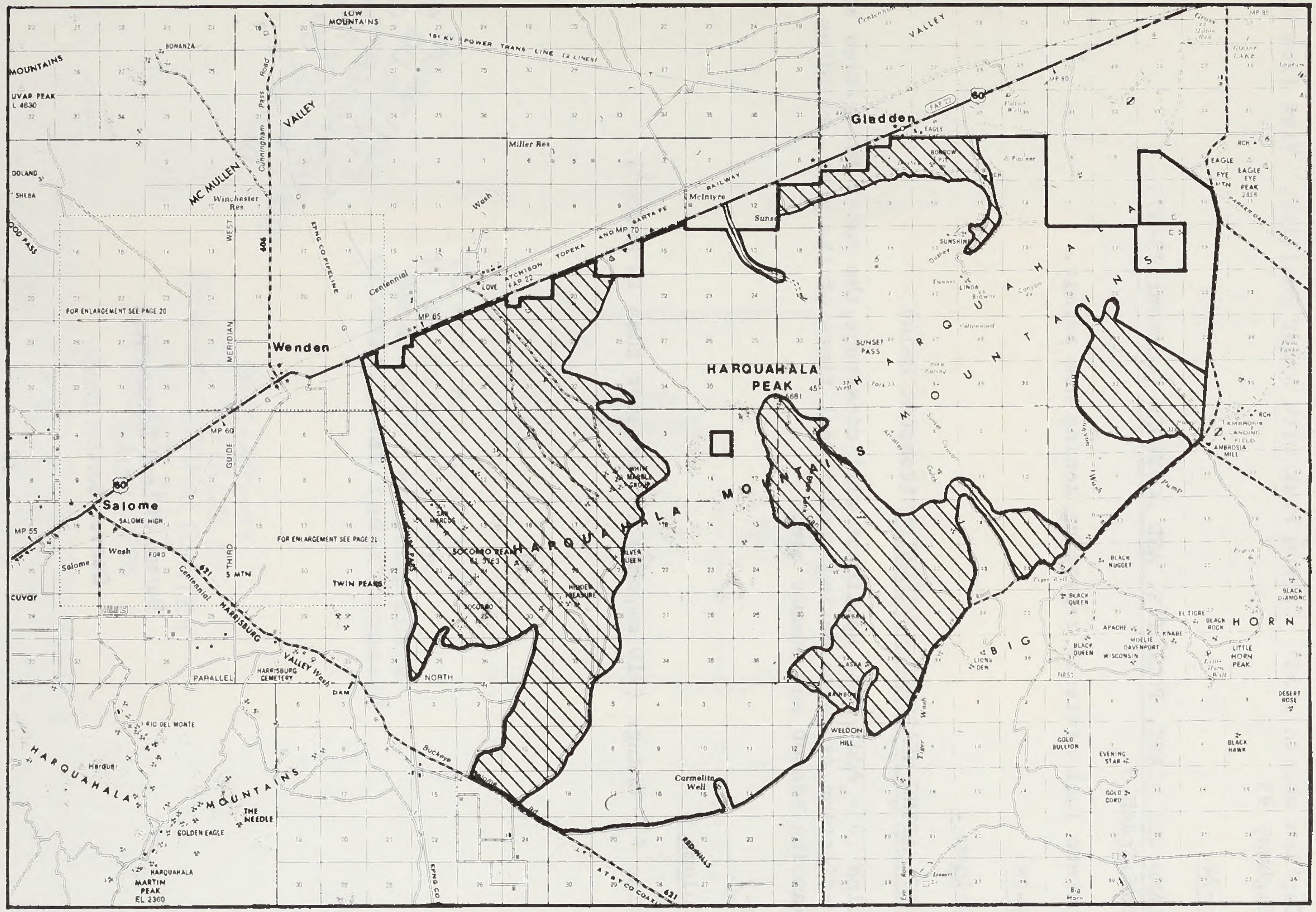
Line 9 - Change to: ...poaching and harassment of desert bighorn sheep and mule deer,

Page 5-12

Figure 5-7 (comment 13-34)

Caption should read: Harquahala Peak with Radar Facility. View from rest stop on U.S. Highway 60.

MAP 4 - 8



(REPLACES MAP 4-8 ON PAGE 4-25/26 OF DRAFT E.S.)

LEGEND

- INITIAL INVENTORY UNIT BOUNDARY
- PORTIONS DROPPED FROM WILDERNESS STUDY AREA

MAP BASE DERIVED FROM GENERAL HIGHWAY MAP
ARIZONA DEPARTMENT OF TRANSPORTATION

SOURCE: BLM TEAM

ERRATA (CONT.)

Page 5-13

Figure 5-8 (comment 13-34)

Caption should read: Cherum Peak with Radar Facility. View from U.S. Highway 93.

Page 5-24

LAND USE PLANS, POLICIES, AND CONTROLS (comment 13-37)
Paragraph 3

Delete last sentence regarding zoning use permit.

Page 5-28

Column 2

MITIGATING MEASURES - WILDLIFE (comment 8-14)

Line 10 - Add: The applicant will construct the radar facilities and mitigation projects during noncritical times of the year, avoiding lambing season and summer use.

Page A-2

Column 2

Line 7 - Change (710 mw/cm^2) to (greater than 10 mw/cm^2).

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